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Antonio J. Colmenarez

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SHAPIRO, LEONID

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANTONIO J. COLMENAREZ, ERIC COHEN-SOLAL,
DAPHNA WEINSHALL, and MI-SUEN LEE

Appeal 2010-001945
Application 09/746,045
Technology Center 2600

Before LANCE LEONARD BARRY, THU A. DANG, and CAROLYN D.
THOMAS, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1-29. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

A. INVENTION

Appellants' invention relates to a wireless pointing system that determines the location of a pointing device and maps the location into a computer to display a cursor or control a computer program (Spec. 1, ll. 5-7).

B. ILLUSTRATIVE CLAIM

Claim 1 is exemplary:

1. A system, comprising:

at least one light source in a movable hand-held device, the movable hand-held device being capable of sending control signals to a remotely controllable device;

at least one light detector that detects light from said light source; and

a control unit that receives image data from the at least one light detector, wherein the control unit detects the position of the hand-held device relative to a position of a user of the movable hand-held device in at least two dimensions from the image data from the at least one light detector and translates the position to control a feature on a display, wherein a change of said feature corresponds to a movement of the movable hand-held device relative to the user.

C. REJECTIONS

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Fitts	US 5,175,601	Dec. 29, 1992
Livits	US 5,661,505	Aug. 26, 1997
Bowling	US 5,746,261	May 5, 1998
Rice	US 5,973,672	Oct. 26, 1999
Arita	US 6,188,388 B1	Feb. 13, 2001 (filed Apr. 16, 1998)
McTernan	US 2001/056477 A1	Dec. 27, 2001 (effectively filed Feb. 15, 2000)
Lin	US 6,346,933 B1	Feb. 12, 2002 (filed Sep. 21, 1999)
Kim	US 6,424,335 B1	Jul. 23, 2002 (filed Sep. 02, 1998)
Girod	US 6,677,987 B1	Jan. 13, 2004 (filed Dec. 03, 1997)

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Girod and Livits.

Claims 8 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Girod, Livits and Lin.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Girod, Livits and Kim.

Claims 11-16 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Girod, Livits and Fitts.

Claims 17-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Girod, Livits and Arita.

Claim 23 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rice, Girod and Livits.

Claims 24-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rice, Girod, Livits and Kim.

Claim 27 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rice, Girod, Livits, Kim and Fitts.

Claim 28 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Girod, Bowling and Livits.

Claim 29 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Girod, McTernan and Livits.

II. ISSUE

The main issue before us is whether the Examiner has erred in determining that the combination of Girod and Livits teaches or would have suggested a control unit that “detects the *position of the hand-held device relative to a position of a user* of the movable hand-held device” wherein “a change of said feature corresponds to a movement of the movable hand-held device relative to the user” (claim 1).

III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Girod

1. Girod’s Figure 1 is reproduced below:

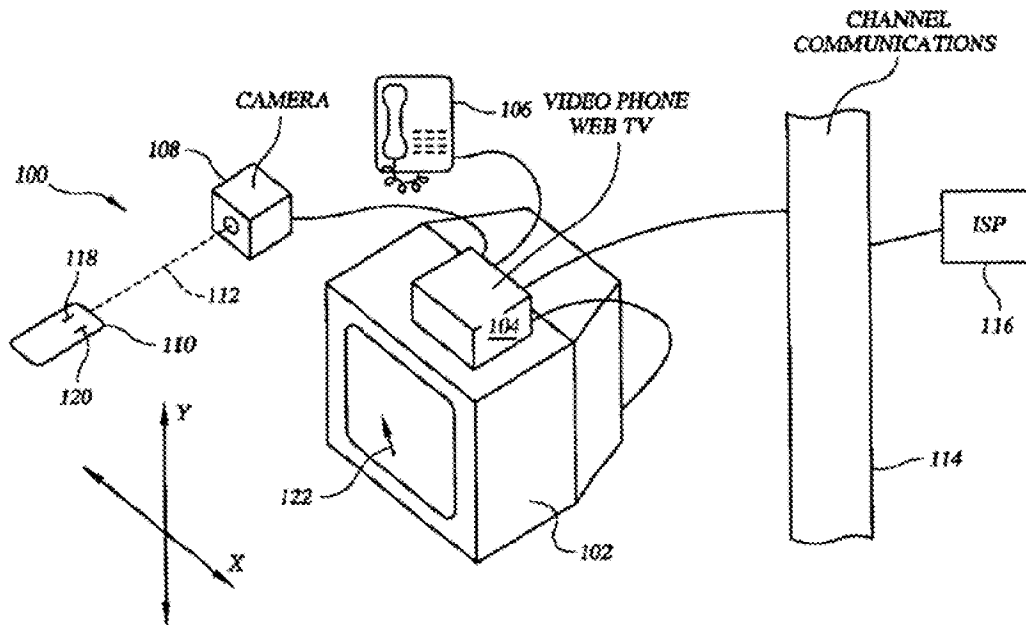


Figure 1 shows that user interaction with an application embodied in set-top box 104 is accomplished with positional light source 110 in combination with camera 108 and signal processing that takes place in set-top box 104 (col. 3, ll. 29-33), wherein button 118 may be used to direct movement of pointer 122 as displayed on television 102 (col. 3, ll. 42-44).

Livits

2. Livits discloses a hand-controlled computer input device that comprises a movable housing having remote and proximate portions relative to the position of the user of the input device, wherein the proximate portion forms a hand supporting surface suitable for the placement of the palm of the user and defines a longitudinal reference line generally parallel to the direction of the hand and fingers of the user when the hand is supported on the proximate portion during use of the input device (col. 3, ll. 19-28).

3. Pivoting elements are adjustably spaced to provide varying degrees of stability to best suit the comfort of the user (col. 6, ll. 39-45).

IV. ANALYSIS

As for claim 1, although Appellants admit that “Girod teaches that movement of the light source can be tracked within digital video data and used to control computer-based applications” (App. Br. 6-7), Appellants contend that Livits does not cure the deficiencies of Girod for failing to disclose “a control unit that *detects the position of a hand-held device relative to a position of a user of the movable hand-held device*” (App. Br. 7). In particular, Appellants contend that “functions of keys on a keyboard of Livits change relative to a position of the keyboard with respect to a surface without regard to a position of a user” (App. Br. 8). In the Reply Brief, though Appellants admit that in Livits, “the position of the keyboard is detected” (Reply Br. 2), Appellants repeat that “the position of the keyboard with respect to a user has no bearing on the functions performed by the keys” (Reply Br. 3).

However, the Examiner finds that, in Livits, “a change of feature corresponds to a movement of the movable hand-held device relative to the user” (Ans. 5). The Examiner explains that if there’s “change relative to a position of the keyboard with respect to a horizontal surface, **then position relative to the user also will change** with three stable positions to best suit the comfort of the user” (Ans. 18).

We note that Appellants’ contention that “functions of keys on a keyboard of Livits change relative to a position of the keyboard with respect to a surface without regard to a position of a user” (App. Br. 8) is not commensurate in scope with the recited language of claim 1. That is, claim 1 does not require that *functions* of keys on a keyboard change relative to a

position of the keyboard with regard to the position of the user. Rather, claim 1 recites a control unit that “detects the position of the hand-held device relative to a position of a user of the movable hand-held device” wherein a change of a “feature on a display ... corresponds to a movement of the movable hand-held device relative to the user” (emphasis added).

Girod discloses a positional light source in a hand-held device in combination with a camera and signal processing that takes place in a set-top box, wherein a button on the hand-held device may be used to direct movement of a pointer as displayed on a television screen (FF 1). We find Girod to disclose a light source in a movable hand-held device capable of sending a control signal to a remotely controllable device (television), a light detector (camera) that detects light from the light source, and a control unit in the set-top box that receives image data from the camera/light detector. Particularly, we find that Girod discloses that the set-top box detects the position of the hand-held device and translates the position to control a feature (pointer) on a display of the television, wherein the change of the position of the pointer/feature corresponds to a movement of the hand-held device. Thus, we find that the only feature of Appellants’ invention missing from Girod is an explicit teaching that the detected position of the hand-held device is “relative to a position of a user.”

However, Livits discloses a hand-controlled input device having a movable housing with portions relative to the position of the user, wherein one portion forms a surface suitable for the placement of the palm of the user and defines a reference line generally parallel to the direction of the hand and fingers of the user during use of the input device (FF 2). In Livits, position of the housing is adjusted to best suit the comfort of the user (FF 3).

We find Livits discloses a movable “position of the hand-held device” that is “relative to a position of a user” wherein “a movement of the movable hand-held device” is “relative to the user.” That is, in Livits, the movement of the housing is relative to the position of the user’s hand and fingers to suit the comfort of the user. Thus, contrary to Appellants’ contention (App. Br. 9), changes to the position of the hand held device with respect to the surface is also with regard to the position of the user.

We find no error in the Examiner’s finding that, in Livits, “a change of feature corresponds to a movement of the movable hand-held device relative to the user” (Ans. 5). We find no error in the Examiner’s finding that if there is “change relative to a position of the keyboard with respect to a horizontal surface, **then position relative to the user also will change** with three stable positions to best suit the comfort of the user” (Ans. 18).

Since the Examiner rejects the claims as obvious over the combined teachings of the references, the test for obviousness is not what each reference shows but what the combined teachings *would have suggested* to one of ordinary skill in the art. *See In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). As discussed above, Girod already teaches detecting the position of the hand-held device and translating the position to control a feature on a display of a television, wherein the change of the position of the feature corresponds to a movement of the hand-held device. (FF 1).

Accordingly, we find no error in the Examiner’s conclusion that combining Girod’s teachings to Livits’ teachings of detecting a position of the hand-held device relative to the position of the user would have at least suggested a control unit that “detects the position of the hand-held device relative to a position of a user of the movable hand-held device” wherein “a change of

said feature corresponds to a movement of the movable hand-held device relative to the user” as required by claim 1.

We find that the artisan, upon reading Livits, would find it obvious that controlling features on a display corresponding to movement of a hand-held device would include the position of the hand-held device relative to the position of the user. The Supreme Court has determined that the conclusion of obviousness can be based on the interrelated teachings of multiple patents, the effects of demands known to the design community or present in the marketplace, and the background knowledge possessed by a person having ordinary skill in the art. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). The skilled artisan would “be able to fit the teachings of multiple patents together like pieces of a puzzle” since the skilled artisan is “a person of ordinary creativity, not an automaton.” *Id.* at 420-21.

Accordingly, we find that Appellants have not shown that the Examiner erred in rejecting claim 1 and claims 2-7 depending therefrom over Girod and Livits. Since Appellants do not provide arguments for claims 8-22 separate from those of claim 1 (App. Br. 8-9), we also find that Appellants have not shown Examiner error in rejecting claims 8-9 over Girod and Livits in further view of Lin, in rejecting claim 10 over Girod and Livits in further view of Kim, in rejecting claims 11-16 and 22 over Girod and Livits in further view of Fitts, and in rejecting claims 17-21 over Girod and Livits in further view of Arita.

As for claims 23, 28 and 29, Appellants repeat that “Livits teaches that functionality of a key on a keyboard is based upon a position of the keyboard with respect to a surface, such as a desk, without regard for a position of a user of the keyboard” (App. Br. 9 and similarly App. Br. 11).

However, as discussed above, we find no error in the Examiner's finding that, if there is "change relative to a position of the keyboard with respect to a horizontal surface [as taught by Livits], **then position relative to the user also will change** with three stable positions to best suit the comfort of the user" (Ans. 18). Accordingly, we also find no error in the Examiner's rejection of claim 23 over Rice, Girod and Livits, of claim 28 over Girod, Bowling and Livits, and of claim 29 over Girod, McTernan and Livits. Since Appellants do not provide arguments for claims 24-27 separate from those of claim 23, we also find that Appellants have not shown Examiner error in rejecting claims 24-26 over Rice, Girod, and Livits in further view of Kim or in rejecting claim 27 over Rice, Girod, Livits, and Kim in further view of Fitts.

Though Appellants also argue for claim 28 that "there is a lack of motivation in connection with combining Girod, Bowling and Livits" (App. Br. 11), we find no error in the Examiner's conclusion that it would have been obvious to combine the references "in order to improve remote control" (Ans. 15) and "provide an improved input device" (Ans. 16). That is, all three references are directed to controlling a position of a hand-held device. The skilled artisan would "be able to fit the teachings of multiple patents together" since the skilled artisan is "a person of ordinary creativity." *KSR at 420-21* (2007).

V. CONCLUSION AND DECISION

The Examiner's rejection of claims 1-29 under 35 U.S.C. § 103(a) is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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